

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/059895 A1

RZG.

(51) International Patent Classification⁷: G10L 13/08

(21) International Application Number:
PCT/EP2003/014314

(22) International Filing Date:
16 December 2003 (16.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): LO-
QUENDO S.p.A. [IT/IT]; Via Valdellatorre, 4, I-10149
Torino (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BADINO, Leonardo
[IT/IT]; Loquendo S.p.A., Via Valdellatorre, 4, I-10149
Torino (IT). BAROLO, Claudia [IT/IT]; Loquendo S.p.A.,
Via Valdellatorre, 4, I-10149 Torino (IT). QUAZZA, Sil-
via [IT/IT]; Loquendo S.p.A., Via Valdellatorre, 4, I-10149
Torino (IT).

(74) Agents: BATTIPEDE, Francesco et al.; Pirelli & C.
S.p.A., Viale Sarca, 222, I-20126 Milano (IT).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

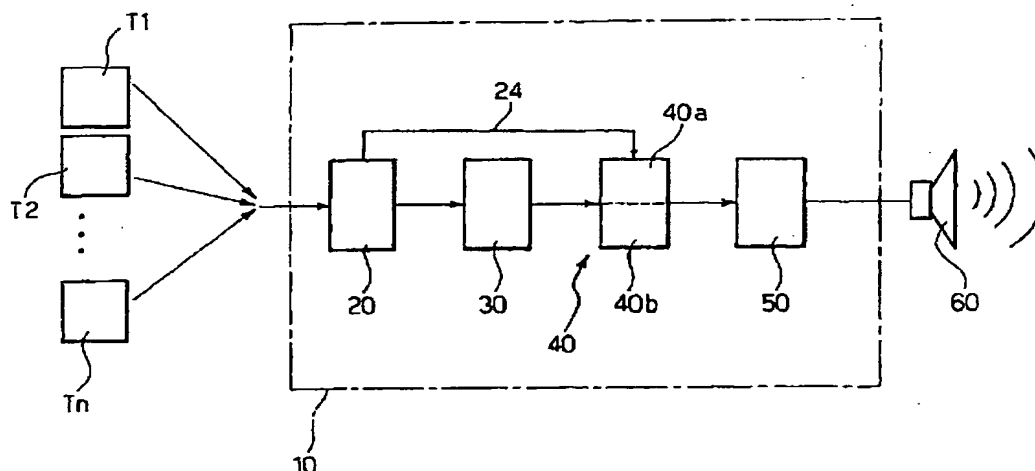
(84) Designated States (regional): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, MI, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii)) for the following designations AE,
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ,
VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian

[Continued on next page]

(54) Title: TEXT-TO-SPEECH METHOD AND SYSTEM, COMPUTER PROGRAM PRODUCT THEREFOR



(57) Abstract: A text-to-speech system (10) adapted to operate on text (T1,...,Tn) in a first language including sections in a second language, includes: a grapheme/phoneme transcriptor (30) for converting said sections in said second language into phonemes of the second language; a mapping module (40; 40b) configured for mapping at least part of said phonemes of the second language onto sets of phonemes of the first language; and a speech-synthesis module (50) adapted to be fed with a resulting stream of phonemes including said sets of phonemes of said first language resulting from mapping and the stream of phonemes of the first language representative of said text, and to generate (50) a speech signal from the resulting stream of phonemes.



WO 2005/059895 A1

BEST AVAILABLE COPY



*patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR),
OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG)*

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

BEST AVAILABLE COPY